

4.2 System Monitoring

This section describes the system monitoring tools used by DAAC operators:

1. WhatsUpGold

This page intentionally left blank.

4.2.1 WhatsUp Gold

WhatsUp Gold is a graphical network mapping, monitoring, and notification COTS application. DAAC network administrators use it to monitor network devices and the services on those devices and to get feedback on their network's performance. WhatsUp Gold provides the following capabilities:

- Creates a graphical representation of a network - using the auto discovery wizard, WhatsUp Gold creates an accurate representation of your network devices and services. WhatsUp Gold uses standard protocols (TCP/IP, SNMP, ICMP, etc.) to map and monitor a network.
- Monitors devices and services – polls the mapped devices and services on the devices. Services that can be monitored include: DNS, FTP, HTTP, SMTP, POP3 and others.
- Provides notification of problems – notifies system administrator when a problem is detected. Notification can be made via desktop alarm, beeper, pager, e-mail or telephone.
- Generates reports - keeps track of device and service availability and response times; presents information via reports or graphs.
- Monitors network via the web - Interactive Web interface allows you to check the status of network devices and perform routine administrative tasks via the Web.

WhatsUp Gold can be configured to perform network device and service monitoring in a variety of different ways. The ECS WhatsUp Gold 7.03 Release Notes (914-TDA-208) provides one way of configuring WhatsUp Gold. Details of the configuration described in the release notes and other ways are provided in the WhatsUp Gold User's Guide, Version 7. The common WhatsUp Gold functions used by the DAAC network administrators are listed in Table 4.2.1-1.

Table 4.2.1-1. Common ECS Operator Functions Performed with WhatsUp Gold

Operating Function	GUI	Description	When and why to Use
View network devices/services status	View icon color and shape on GUI; view quick status dialog box.	Icon color and shape indicates the status of network devices and services.	To verify that all network devices and services on the devices are operational. To ascertain network devices and services that are not operating properly.
View network devices/services performance data	Logs and Report menus on GUI	A set of reports that can be viewed, printed, and/or its content transmitted to a file.	To obtain status information about monitored devices and services.

4.2.1.1 Quick Start using WhatsUp Gold

WhatsUp Gold is a PC based COTS application used to monitor network devices and services on the ECS Production LANs. WhatsUp Gold capabilities are executed through the use of WhatsUp Gold GUIs. Reference Chapter 1 (Introduction) of the WhatsUp Gold User's Guide, Software version 7.0 for an overview of the WhatsUp Gold capabilities.

4.2.1.2.1 Invoking WhatsUp Gold

To execute WhatsUp Gold, the operator must be logged on to the WhatsUp Gold PC. Click the **Start** button on the PC monitor; select **Programs** from the pop-up menu; select **WhatsUp** from the pop-up menu; select **WhatsUp Gold** from the pop-up menu. This brings up the WhatsUp Gold main window. If the network map is not already opened, click **File -> Open** and find and open the network map (assuming the network's map was created shortly after the installation of the WhatsUp Gold software as recommended by the WhatsUp Gold 7.03 Release Notes).

4.2.1.2 WhatsUp Gold Main Screen

The main screen shown in Figure 4.2.1-1 shows an example of a network map. The network map has an icon for each device to be monitored. There is a toolbar at the top and bottom of the screen. The top toolbar provides a series of menus and submenus used to configure and control the activities of WhatsUp Gold. On the bottom tool bar, **Map** is used to place WhatsUp Gold in an active polling mode. **Edit** is used to place WhatsUp Gold in a map edit mode. In the active polling mode, one can get current device status by simply placing the mouse pointer on a device's icon. The status is shown in the line just below the bottom toolbar. A summary of statistics can be obtained for all of devices by clicking the **Statistics** button. A listing of all the notifications made can be obtained by clicking the **Notification** button. In the edit mode, changes can be made to the network map and can include adding and deleting devices' icons.

4.2.1.2.1 Indications of a Service Problem

WhatsUp Gold automatically provides notification of device and device service problems. The device icons remain green if the device and its services are responding to the WhatsUp Gold polls. The device icon turns yellow if it misses two polls and red if it misses four or more polls. If a service on a device is down, the shape of the background of this device's icon changes from a square to an octagon. This icon's color changes from green to purple. Note that the map shown in Figure 4.2.1-1 indicates a service is down on one of the devices in the first column.

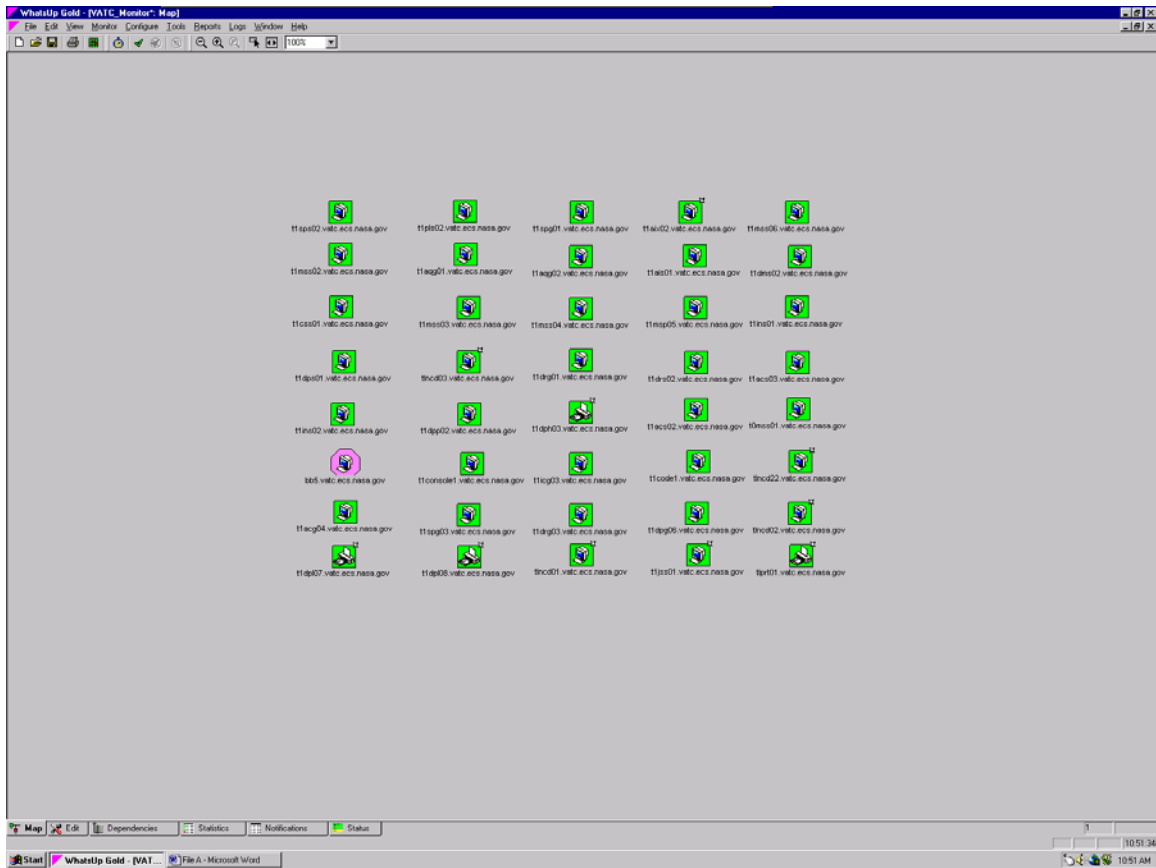


Figure 4.2.1-1. WhatsUp Gold Main Screen with Network Map

Using the mouse, right click the device's icon to get a device menu as shown in Figure 4.2.1-2. This menu provides access to a lot of information about the selected device. Refer to Chapter 4 (Monitoring Services) for more information about the device's menu.

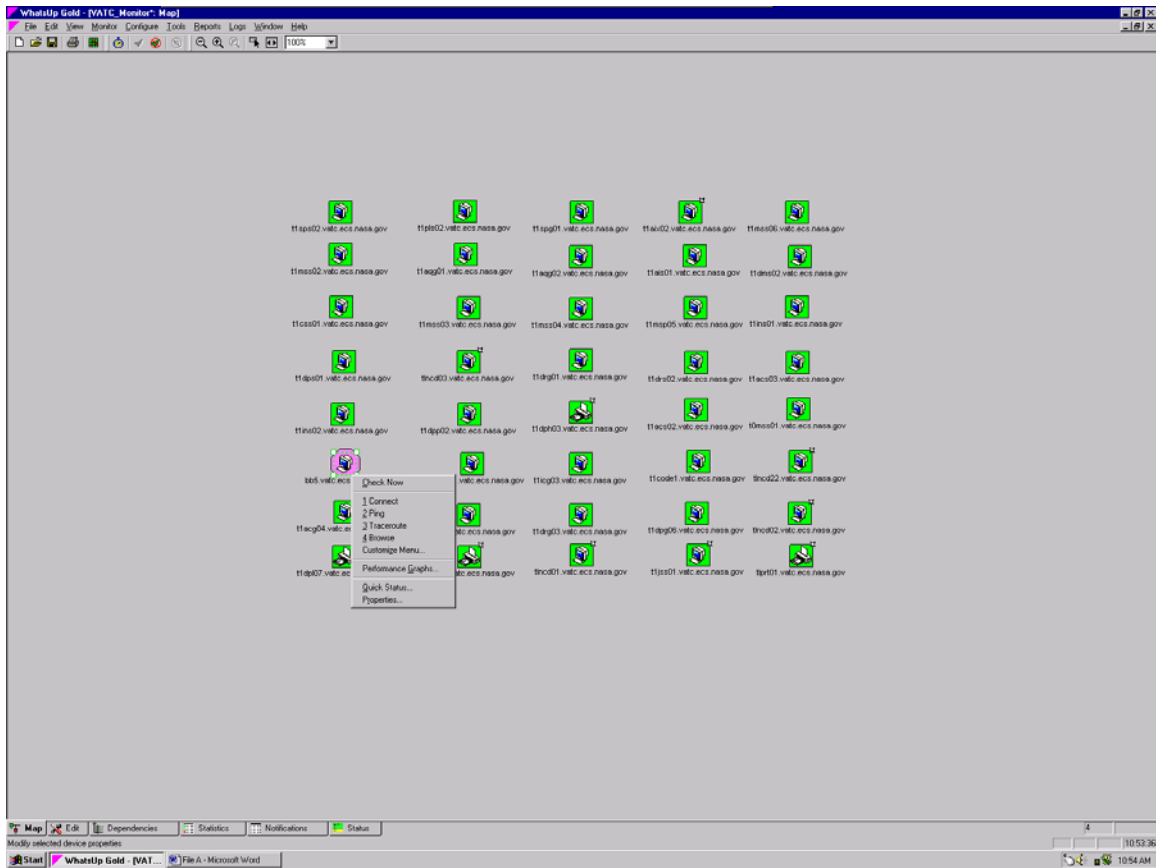


Figure 4.2.1-2. Device's Icon Pulldown Menu.

To determine which of the services are down on the highlighted device and to get logged information, click the Quick Status option and a Quick Status window for the selected device is displayed. Click the Status option and the current status of the services of the selected device is displayed as shown in Figure 4.2.1-3.

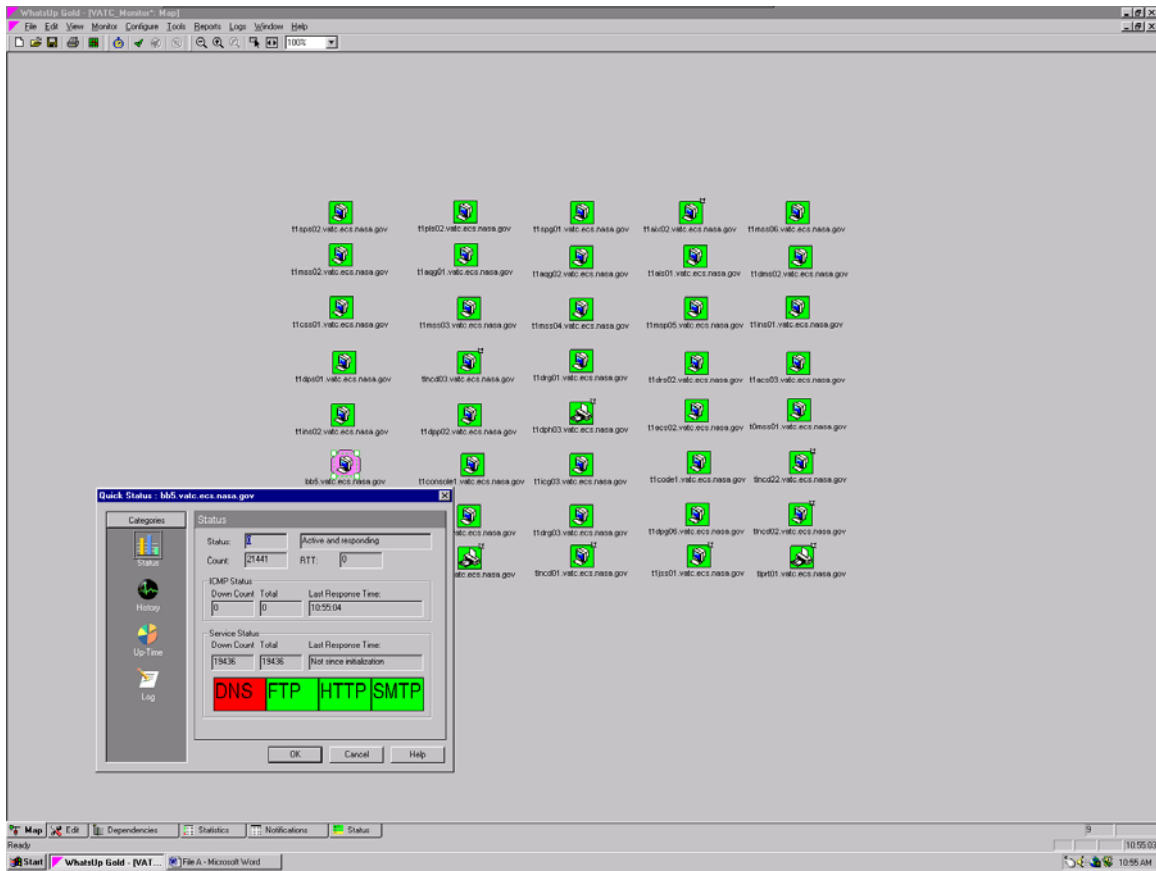


Figure 4.2.1-3. Selected Device's Quick Status Window

As you can see, the DNS service is down on the selected device. The DNS service label is colored red (appears darker than the other services' labels) while the other services' labels are colored green. The date and time this service went down can be found in the log (bottom category on the left side of this window) for this device.

4.2.1.2.2 Indications of a Device Problem

When a network device goes down, the color and shape of the device's icon changes. The icon's background shape changes to a starburst shape and the color becomes red as shown in Figure 4.2.1-4. This is one form of alert notification that WhatsUp Gold uses to alert the network administrator a device is down. There are other forms of alerts that can be configured. Refer to Chapter 3 (Setting up Notifications) of the WhatsUp Gold User's Guide for instructions on setting up other types of notification.

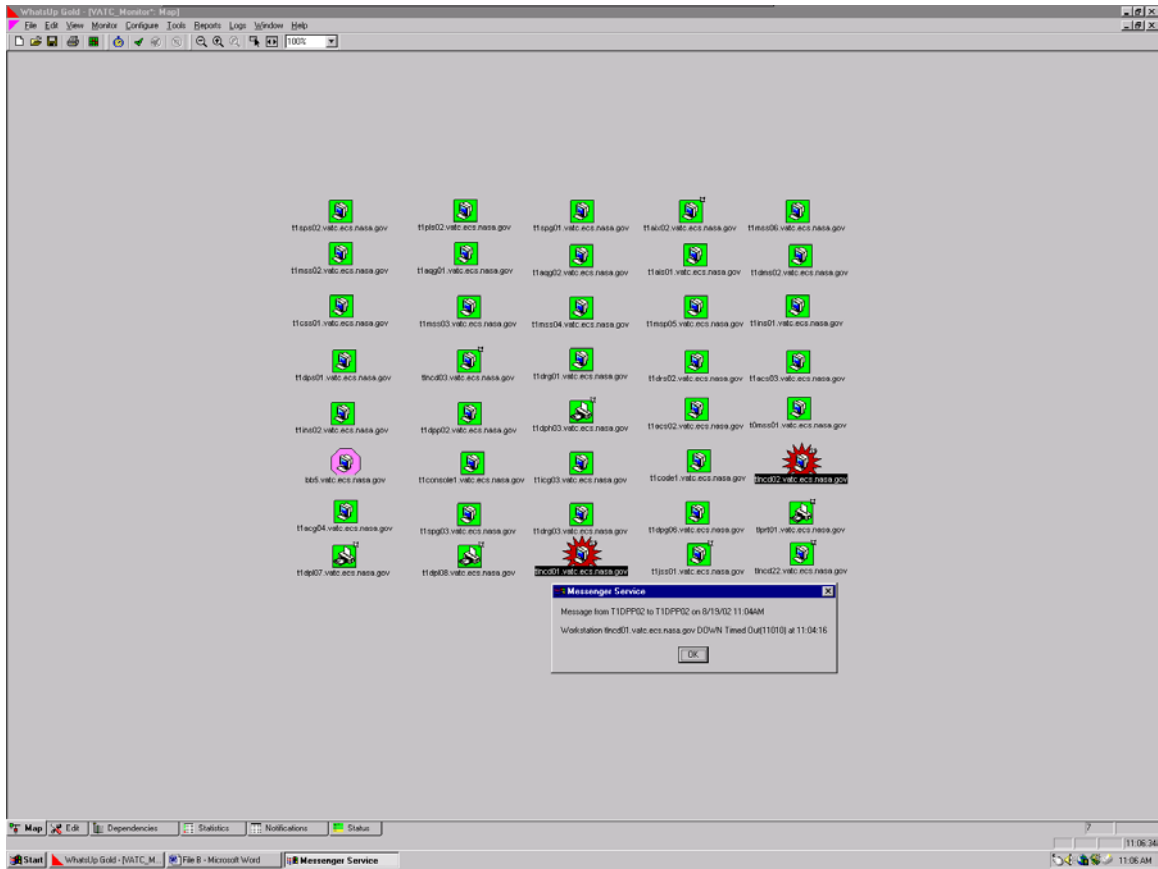


Figure 4.2.1-4. Network Devices Status.

One other form of alert notification is the WinPopup message. An example of a WinPopup message is shown at the bottom of the network map in Figure 4.2.1-4. This message can be configured to provide additional information about the device, such as date and time that it went down, a point of contact, vendor phone number, etc.

Additional status information about this device can be obtained once again by right-clicking the starburst shaped icon with the mouse and selecting the Quick Status option. The Quick Status window is displayed in Figure 4.2.1-5.

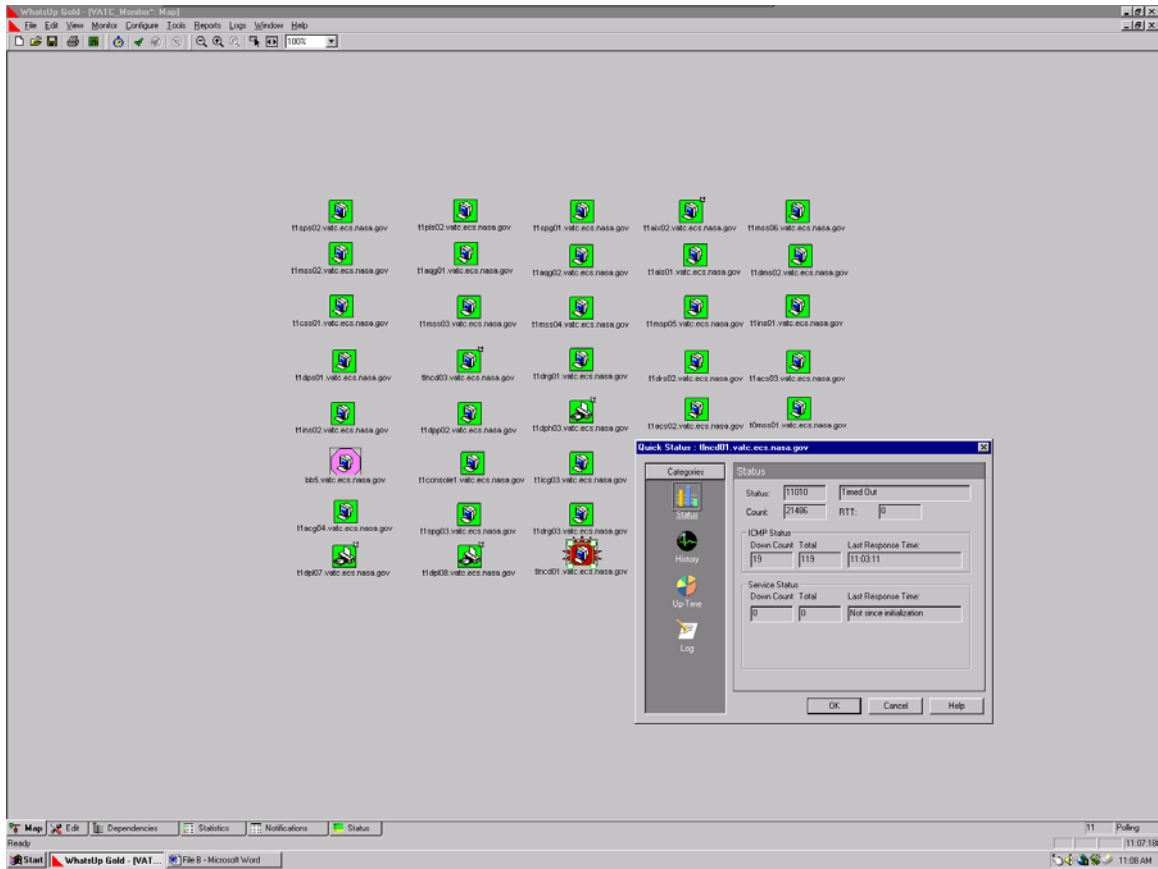


Figure 4.2.1-5. Quick Status for Inoperable Device

The categories on the Quick Status window: Status and Log provide pertinent information (IP address, date and time it went down, etc.) about this inoperable device.

After the problem on the device has been resolved, the device is restarted. Once WhatsUp Gold detects the device is operational again; the shape of the device's icon becomes square and its color changes back to green.

4.2.1.2.3 WhatsUp Gold Reports

WhatsUp Gold logs changes in the network devices' status and their polling statistics. From the logged data, WhatsUp Gold can create Statistics Reports, Performance Graphs and Event Reports. An example of an Event Report is shown in Figure 4.2.1-6. The Event Report shows the devices' up and down events and the up and down events for services on those devices.

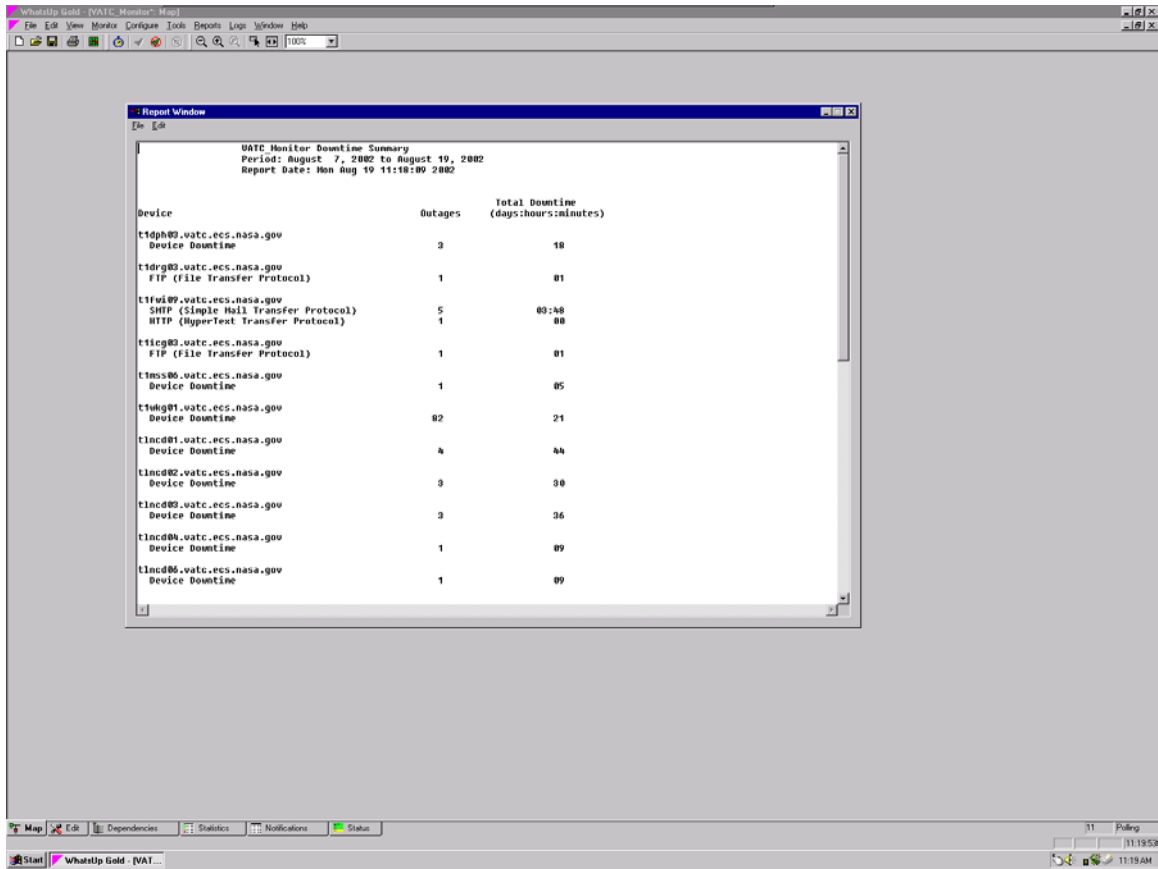


Figure 4.2.1-6. WhatsUp Gold Event Report

The Reports menu in the top toolbar provides access to the different types of reports and the variations of the reports. Refer to Chapter 6 (Logs and Reports) of the WhatsUp Gold User's Guide for explanations of these reports and the instructions for creating and adding new reports to the WhatsUp Gold reports menus.

4.2.1.3 Required Operating Environment

The required operating environment is provided in the WhatsUp Gold 7.03 Release Notes. These release notes can be found on the ECS Baseline Information System web page, URL <http://cmdm.east.hitc.com/>.

4.2.1.3.1 Interface and Data Type

WhatsUp Gold interfaces with the network devices through use of its Internet control message protocol (ICMP) polling method. It conducts its poll through use of the devices' IP addresses.

4.2.1.3.2 Databases

WhatsUp Gold captures its event data in log files. These files are read only type files.

4.2.1.3.3 Special Constraints

None

4.2.1.3.4 Outputs

Outputs from WhatsUp Gold come in the form of Event Reports, Statistics Reports, and Performance Graphs. These items can be displayed on the monitor and/or sent to the printer. The contents of the Event Reports and Statistics Reports can also be sent to a file for use in other applications.

4.2.1.3.5 Event and Error Messages

WhatsUp Gold logs network event information in event logs. It changes the appearance of devices' icons on the network map to alert the network administrator something is not working properly. It updates the device's properties Status and Log dialog boxes. It sends out other types of notifications to designated persons if it is configured to do so. Refer to Chapter 3, "Setting Up Notifications" of the WhatsUp Gold User's Guide for detailed information about WhatsUp Gold event and message activities.

4.2.1.3.6 Reports

WhatsUp Gold produces three types of reports: Event Reports, Statistics Reports, and Performance Graphs. An Event Report shows the devices' up and down events and services' up and down events. A Statistics Report shows accumulated polling statistics by device. A Performance Graph provides a graph of devices' and services' availability and polling response times.

This page intentionally left blank.

4.3 Configuration Management

This section describes the configuration management tools used by DAAC operators:

1. ClearCase
2. CDDTS
3. XRP-II (Baseline Manager {BLM})
4. XRP-II (Inventory, Logistics and Maintenance {ILM} Manager)
5. FLEXlm
6. Remedy's Action Request System

This page intentionally left blank.

4.3.1 ClearCase

This section presents an orientation of ClearCase. ClearCase terminology such as VOB (versioned object base, public storage area for files) and views (operator private storage), etc., is used throughout this section. Refer to the *ClearCase User's Manual* for both a more detailed description of ClearCase and an explanation of the terminology used. Refer to the *ClearCase User's, Administrative, and Reference Manuals* for detailed explanations of ClearCase functionality.

ClearCase is a COTS product used on ECS to perform the Software Change Manager functions. It provides the M&O staffs at the SMC and the DAAC sites the capability to organize and store software in a software library, to control software changes and versions, and to assemble sets of software for release purposes. Specifically, ClearCase is to regulate access to these files; to control and log file changes; to perform builds of software and keep a record of the build's content (files, compiler, and other resources used). ClearCase is used to perform a variety of operator functions. The most frequently used functions are listed in Table 4.3.1-1.

**Table 4.3.1-1. Common Operator Functions Performed with ClearCase
(1 of 2)**

Operating Function	Command/Script or GUI	Description	When and Why to Use
Establish a View	Setview /GUI (View Menu, Set Option) selection	The command or the GUI selection activates a view and allows user access to controlled files.	(1) Used to activate a reproducible workspace for a developer for working with specific file versions and directories for a task (2) Used to assemble sets of software for release purposes
Checkout Software	Checkout/GUI (Checkout) selection	The command or the GUI creates a view private, modifiable copy of a file version.	Used when a developer/maintainer needs to modify an existing version of software.
Checkin Software	Checkin/GUI (Checkin) selection	The command or the GUI selection creates a permanent new version of a file.	Used when a developer/maintainer needs to return a modified file version to the ClearCase software library.
Perform software builds	Clearmake/GUI (Building menu)	(1) ClearCase build utility that automates the process of software builds (2) Facilitates derived object sharing (3) Creates a record of the build so that it can be repeated	Used when it's time to build, integrate and/or test developed/revised software.

**Table 4.3.1-1. Common Operator Functions Performed with ClearCase
(2 of 2)**

Operating Function	Command/Script or GUI	Description	When and Why to Use
Display the mount-point and storage directory of all VOBs on the system	Cleartool lsvob/GUI (Admin menu)	ClearCase utility that determines and displays default/specified information about all of the VOBs that have been established.	(1) Used to list one or more VOBs (2) Used to determine which VOBs are mounted (3) Used to determine which VOBs are private or public (refer to <i>ClearCase Reference Manual</i> for details)

4.3.1.1 Quick Start Using ClearCase

To invoke ClearCase from the command line prompt type:

/usr/atria/bin/xcclearcase.

4.3.1.2 ClearCase Graphical User Interface

ClearCase has a command line interface (CLI) and a graphical user interface (GUI). The GUI enables execution of all the common functions and facilitates graphical examination of the version history of objects in VOBs. When ClearCase is invoked, a Transcript screen as shown in Figure 4.3.1-1 appears. The Transcript screen displays status of functions executed and displays warning and error messages. It automatically appears when the status of an activity needs to be displayed.

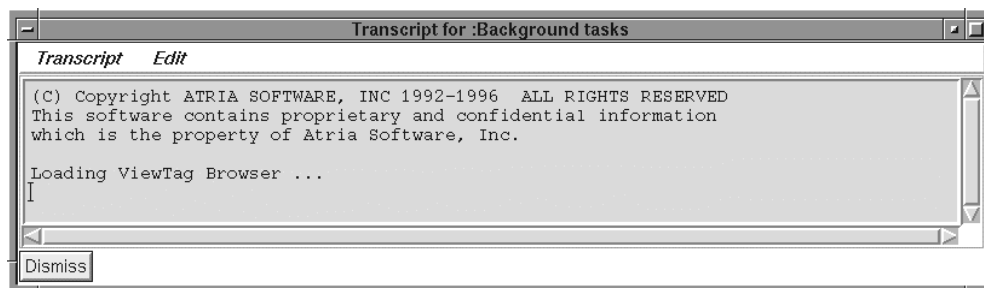


Figure 4.3.1-1. ClearCase Transcript Screen

4.3.1.2.1 Establish View

Operator access to versions of files in a VOB is facilitated by a view. When ClearCase is initiated, the operator is asked to select a view. Available views are displayed in the View Tag Browser Screen as shown in Figure 4.3.1-2. Select a view by highlighting the desired view and clicking the “Ok” button at the bottom of the screen.

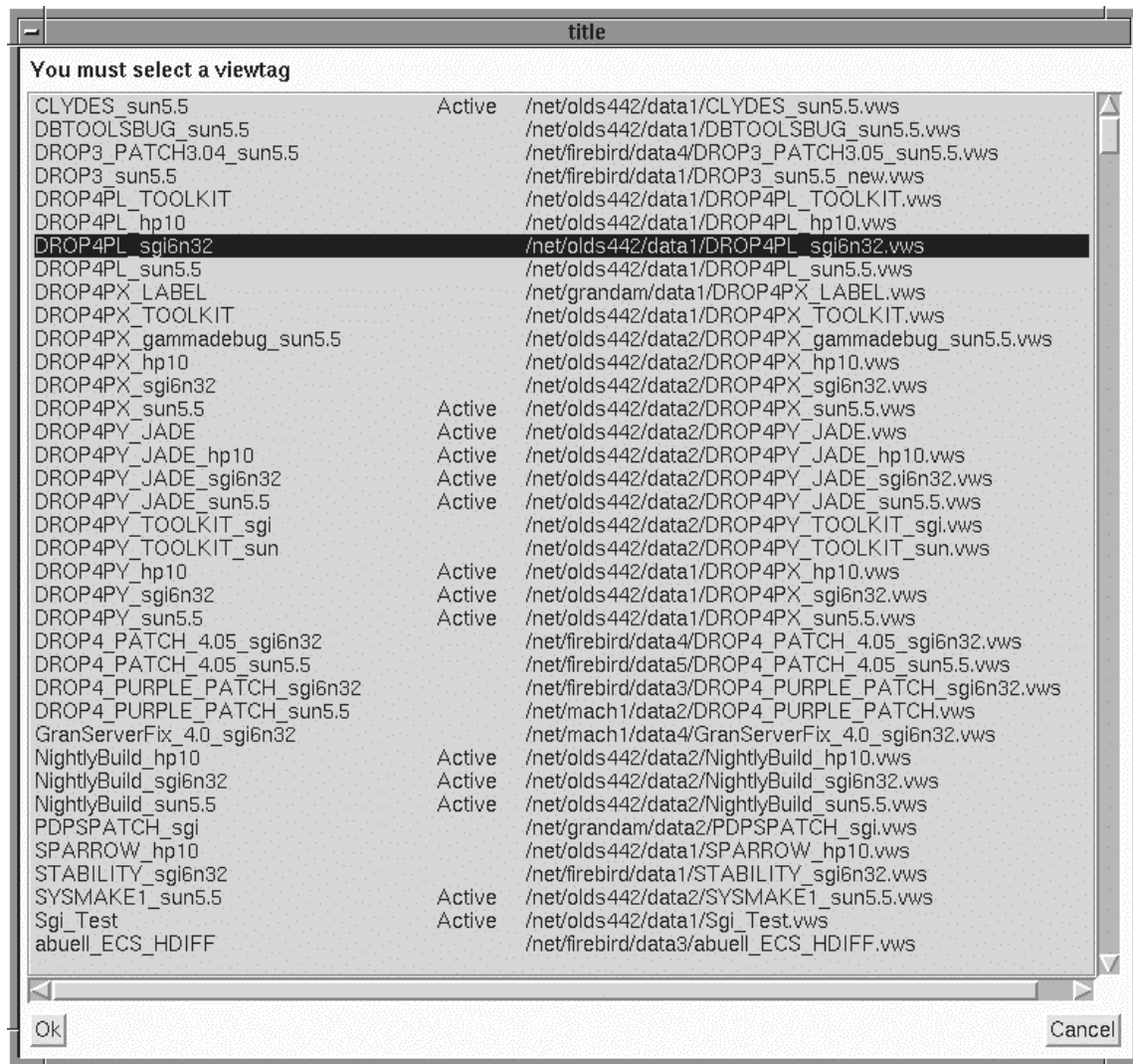


Figure 4.3.1-2. View Tag Browser Screen

After a View is selected the ClearCase File Browser screen, the main GUI screen, appears as shown in Figure 4.3.1-3. The File Browser screen displays the current directory name just below the toolbar and displays the contents of the directory in the space below the directory's name. A variety of GUI-oriented functions can be initiated from this screen. Explanations of the menu bar and the toolbar items are provided in Chapter 3 of the *ClearCase User's Manual*.

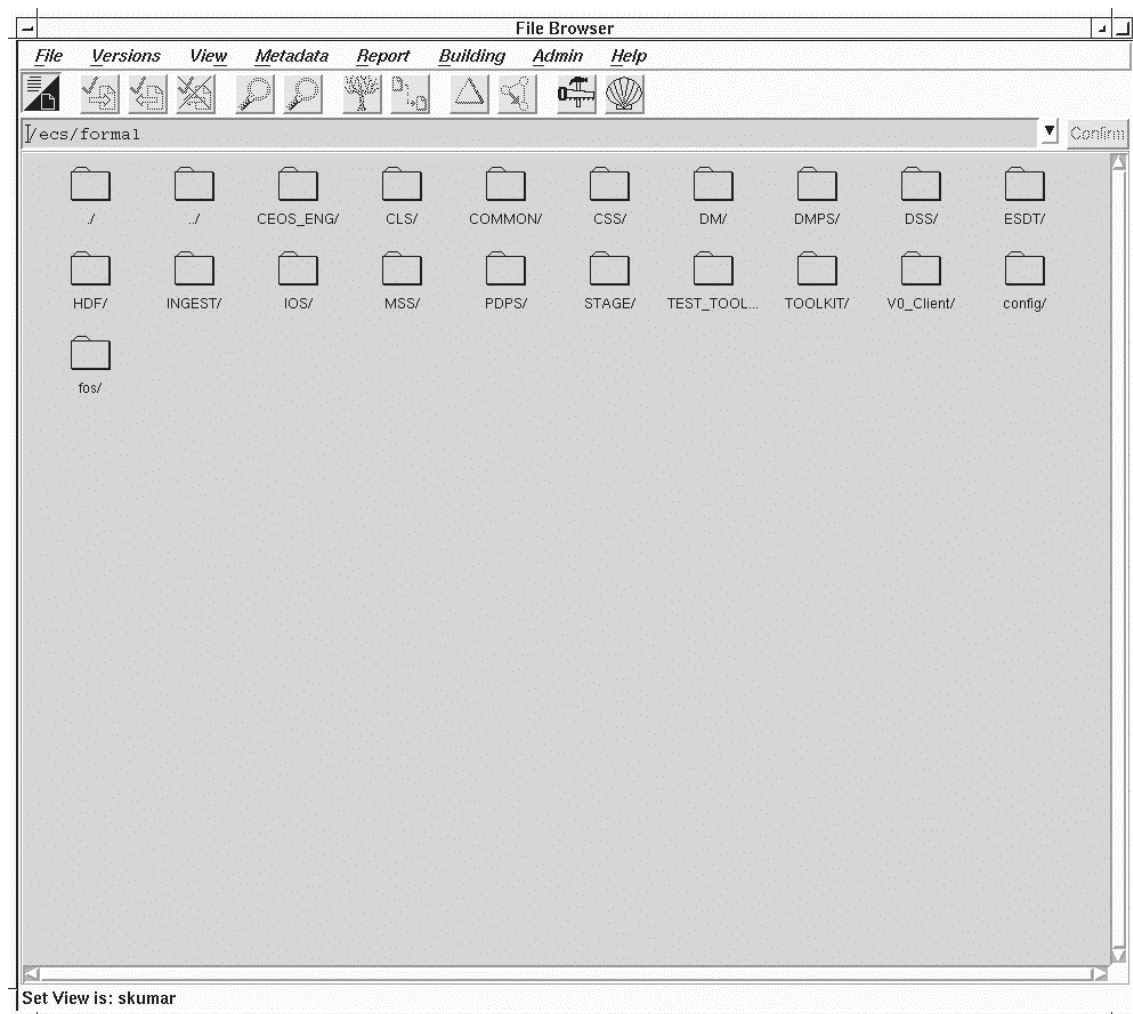



Figure 4.3.1-3. ClearCase File Browser Screen (Main Screen)

4.3.1.2.2 Checkout Software

Software file versions in a ClearCase VOB are in a read-only state. An operator must check a file version out of the VOB before any editing of the file version can be accomplished. Check out a file version by selecting the file and clicking the checkout icon  on the toolbar. An alternate method is to select the file, click the Versions menu, then the Checkout option, then one of the “Reserved or Unreserved” options shown in Figure 4.3.1-4.

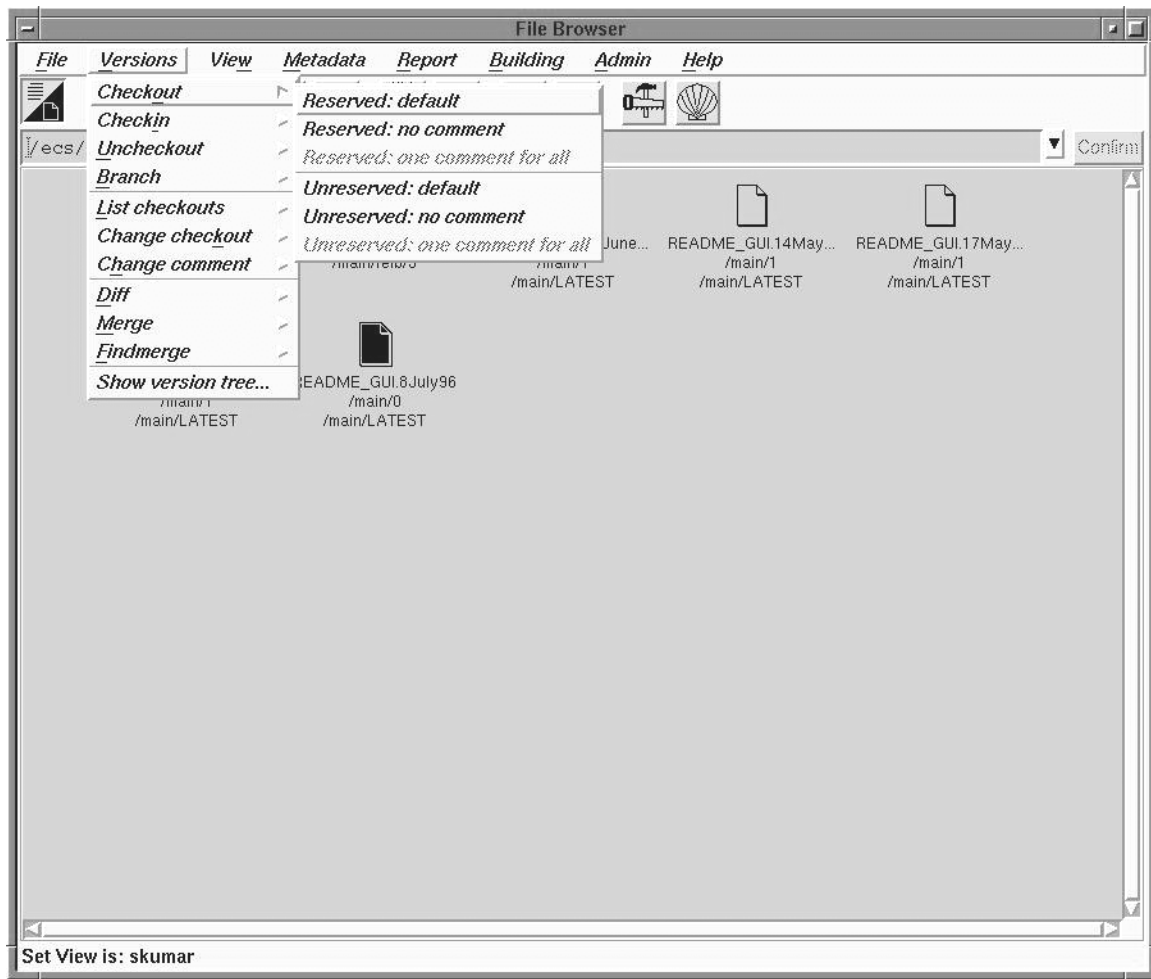


Figure 4.3.1-4. ClearCase File Browser Screen (Checkout Software)

If the operator is authorized and the view is set up to checkout files, then the checkout process continues and the ClearCase Prompt screen appears as shown in Figure 4.3.1-5. This screen gives the operator the opportunity to enter an explanation of why the file version is being checked out.

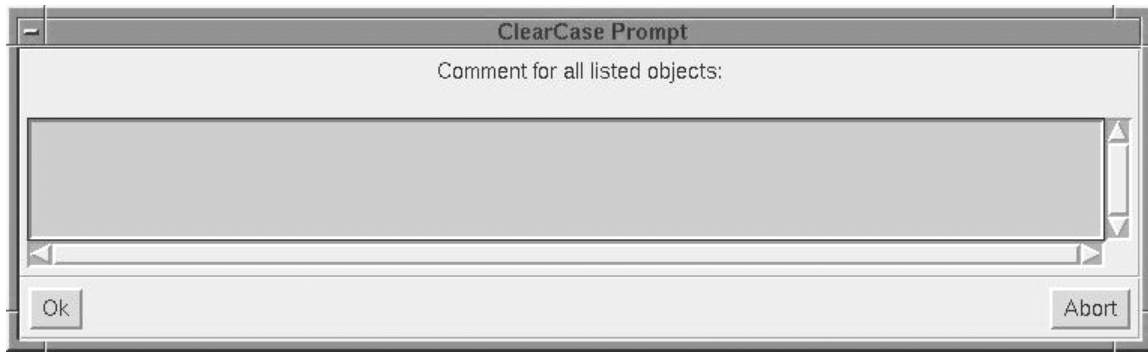


Figure 4.3.1-5. ClearCase Prompt Screen (Checkout Comment)

After appropriate comments are entered, click the “Ok” button and ClearCase adds the comments to the historical record for the file version. The File Browser screen reappears as shown in Figure 4.3.1-6 and it shows that the file version has been checked out. Note, the check mark for file, README_GUI.8.July96 (more updated version available?), has been added. Addition of the check mark is an indication of a successful checkout.

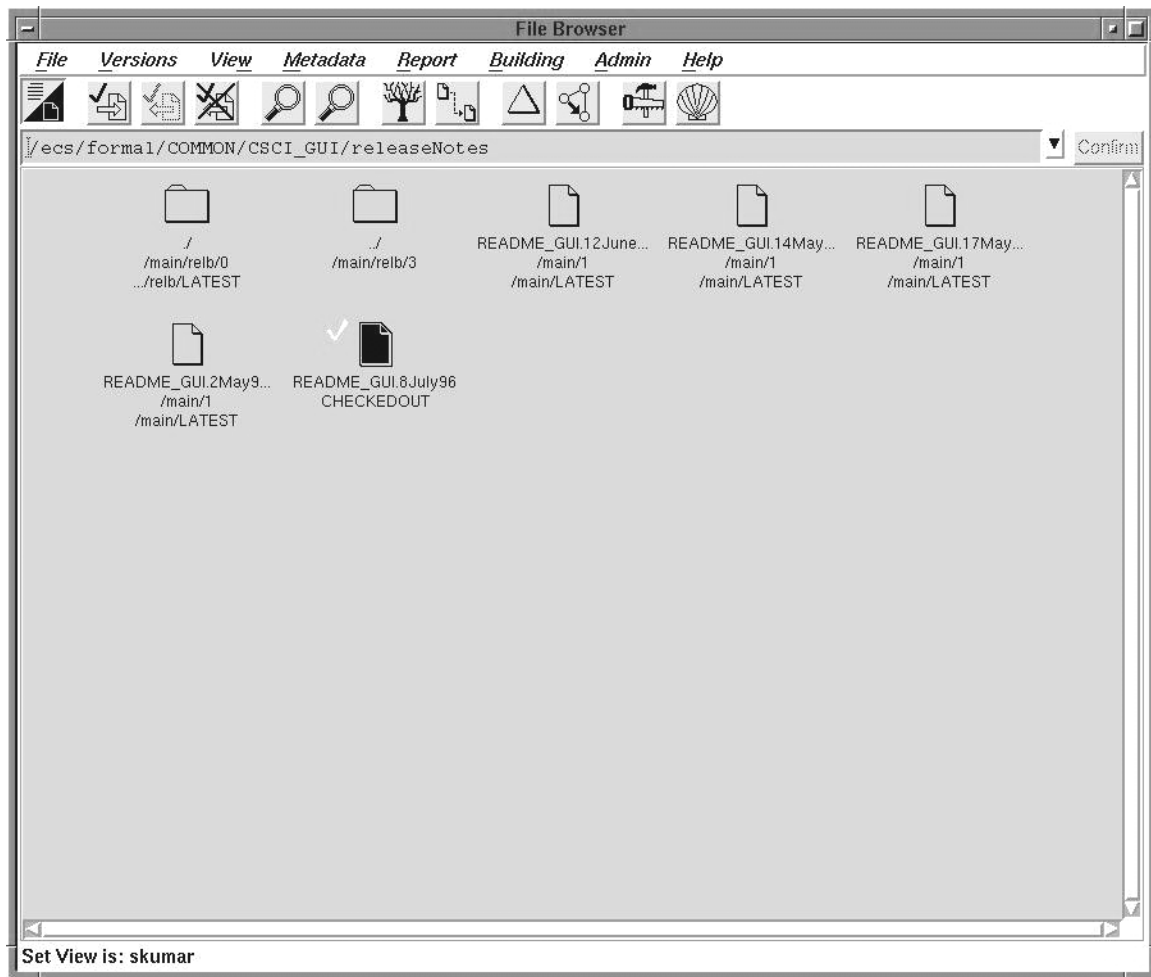



Figure 4.3.1-6. File Browser Screen (File Version Checked-Out)

To verify that the file version has been checked out on a branch, click the Vtree icon  on the File Browser toolbar. This activates the Version Tree Browser and it displays a graphical image of the branching as shown in Figure 4.3.1-7. Note, the checked out file version has been placed on the main branch (/main) in the example below.

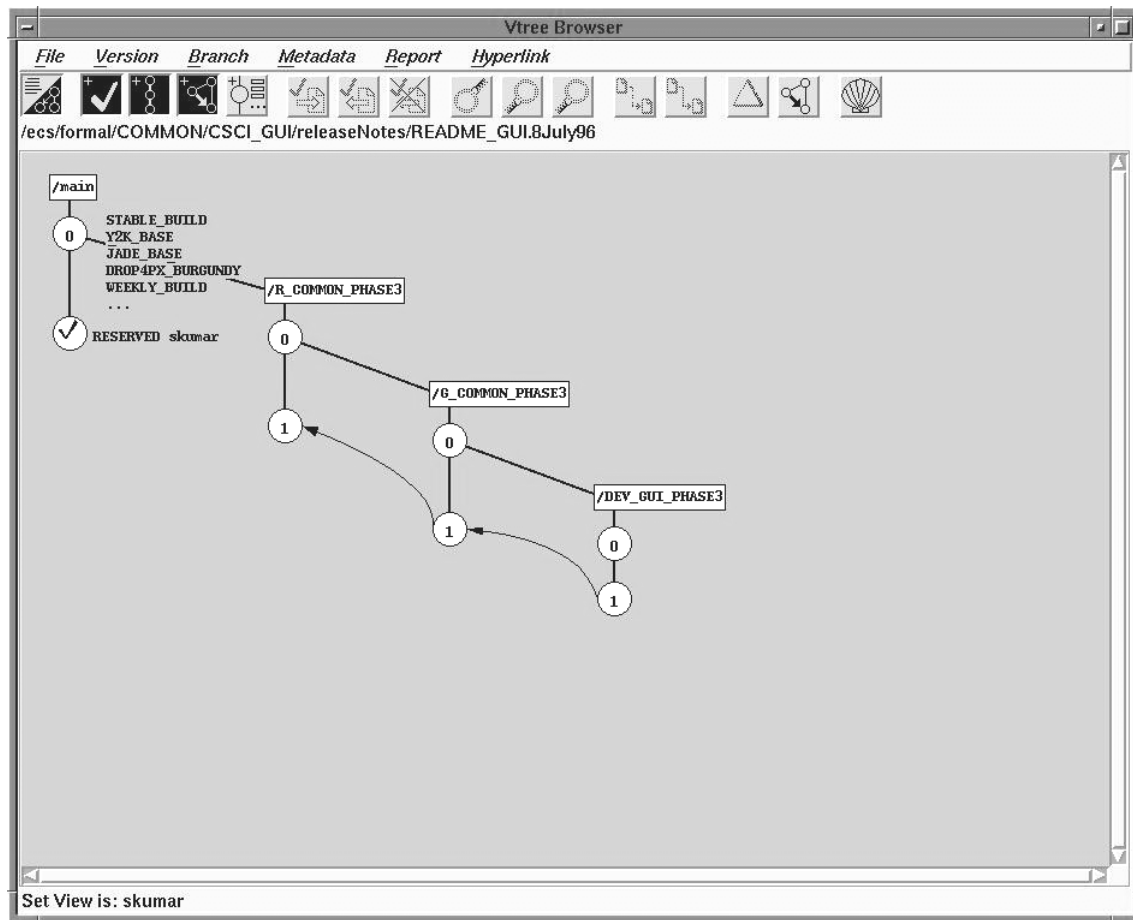



Figure 4.3.1-7. ClearCase Version Tree Screen

4.3.1.2.3 Checkin Software

A software file version checked out of the ClearCase library for editing must be checked in to the library for it to become a new version of the original file. Click the checkin icon  on the File Browser toolbar to initiate the check-in process. A ClearCase Prompt box appears as shown in Figure 4.3.1-8 to facilitate the adding of comments at check in to the file version's record. Enter a comment and click the "Ok" button to continue or just click the "Ok" button to continue the check-in process.

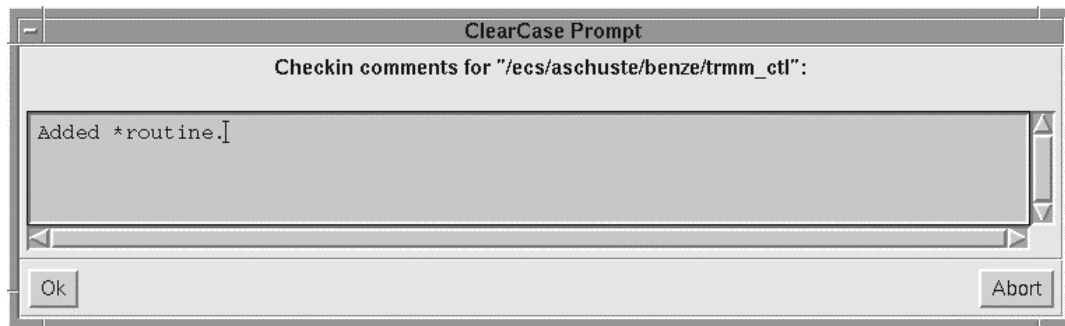


Figure 4.3.1-8. ClearCase Prompt Screen (Checkin Comment)

The File Browser screen reappears as shown in Figure 4.3.1-9 and it shows that the file version has been checked in. Note, the check mark for file, README_GUI.8July96 (more updated version available), has been removed. Removal of the check mark is an indication of a successful checkin.

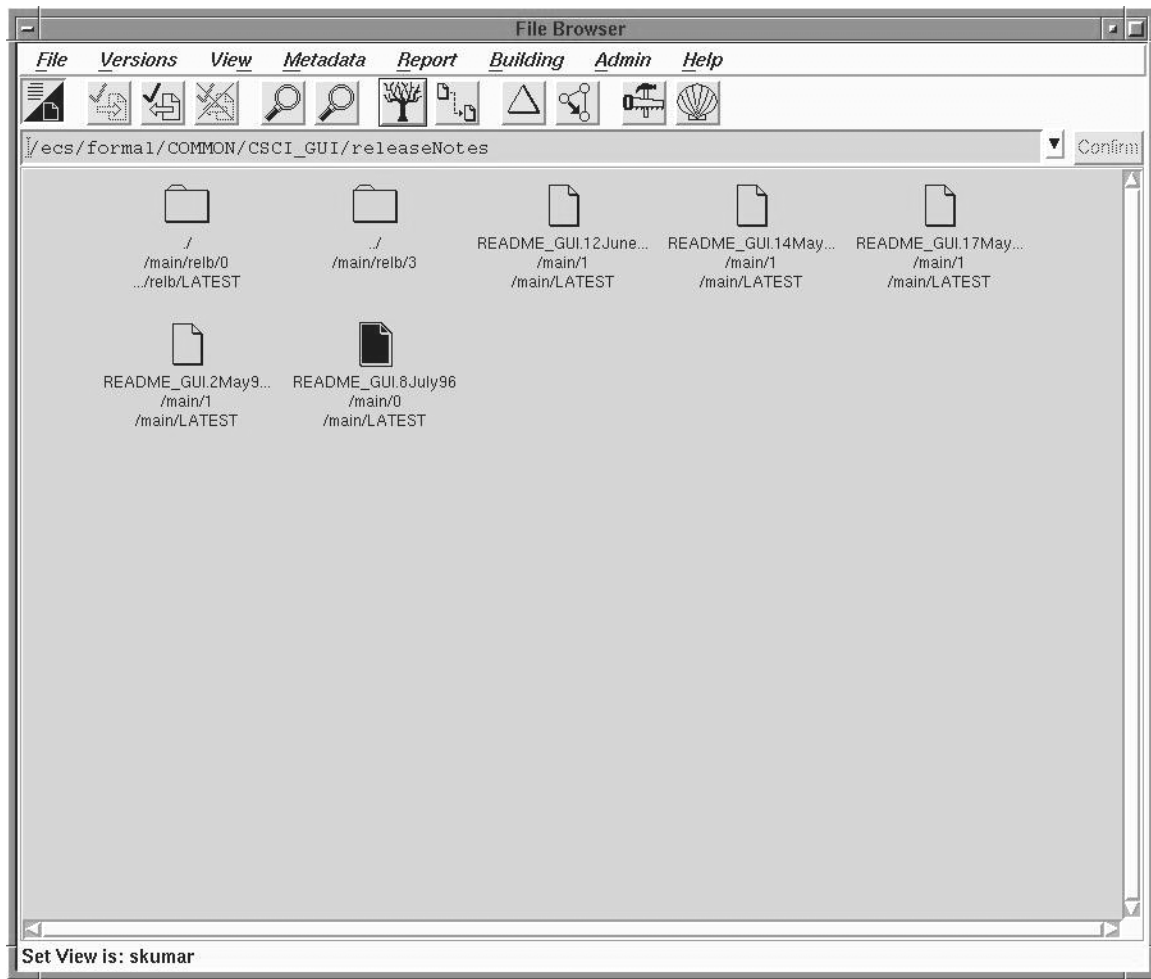


Figure 4.3.1-9. ClearCase File Browser Screen (File Checked-In)

4.3.1.2.4 Perform Build

The Building menu on the File Browser as shown in Figure 4.3.1-10 is used to produce derived objects. The Building menu is the GUI version of the command line interface build utility called clearmake. Reference the *ClearCase User's Manual* and the clearmake section of the *ClearCase Reference Manual* for information on the use of this capability.

4.3.1.6 Outputs

Reference the *ClearCase User's Manual* for a description of the ClearCase outputs.

4.3.1.7 Event and Error Messages

ClearCase creates an event record for most of the processing activities that modify the VOB and stores it in the VOB database. These records are linked to the derived objects. These records provide a chronological event history for the objects. Reference the *ClearCase Reference Manual* for detailed information about logging of ClearCase events. The reference manual describes the contents of an event record, VOB objects that have event histories, and ClearCase operations that cause event records to be written.

ClearCase error messages indicate that a problem has occurred. Some errors are user correctable and others require correction by the operations staff. In both cases, ClearCase records error and status information in its log files. Reference the *ClearCase Reference Manual* for a description of the error logs, the ClearCase programs that use them, the error logs location, and their format.

4.3.1.8 Reports

None.

4.3.2 Clear Distributed Defect Tracking System (CDDTS)

The Clear Distributed Defect Tracking System (CDDTS), is the COTS product serving as the ECS Change Request Manager (CRM). CDDTS provides the functionality necessary to compose, submit, report, and track status of proposals to change the ECS baseline. It provides the capability to register Configuration Change Requests (CCR) electronically. A CCR is a document that requests, justifies a need for, and defines a change to a configuration item (CI). A CI is an aggregation of hardware, firmware, software, or any of its discrete portions, which satisfies an end use function and is designated for configuration control.

CDDTS prompts for relevant information, assigns an identifier, and mails notification of the newly submitted requests to designated personnel. As the CCRs advance through approval and implementation processes, CDDTS maintains status, disposition, resolution, and closure information as entered by the M&O staff. It sends notification to designated personnel when the status of the CCR record changes and makes data available for viewing by designated staff members. CDDTS also keeps track of Non-Conformance Reports (NCRs) for M&O Sustaining Engineers. CDDTS is used to perform the operator functions listed in Table 4.3.2-1.

Refer to the *ClearDDTS User's Manual* for additional information about CDDTS. For information on the use of *ClearDDTS* in the ECS operational environment, see Section 9 of the Mission Operations Procedures document (611-CD-610-001, Oct 2002).

Table 4.3.2-1. Common ECS Operator Functions Performed with CDDTS (1 of 2)

Operating Function	GUI	Description	When and Why to Use
Viewing CCR	CDDTS Main Screen	Operator views the contents of the selected CCR by highlighting the CCR in the CCR Index.	To quickly view the contents of CCRs in the Index.
Submit CCR	CDDTS Main Screen	<ul style="list-style-type: none">• Operator initiates CCR record submission process by clicking the "Submit" button.• An initial set of data fields appears for entry of data.	Whenever there is a new CCR to be entered.
Change the Status (state) of the CCR	CDDTS Main Screen	<ul style="list-style-type: none">• Operator changes the status of a CCR as it moves through its lifecycle states by clicking "Change_State" menu and selecting the state desired.• Each state transition causes a new set of data fields to appear for entry of data.	Whenever the activities of a particular state have been completed and it is time to move to the next state.

Table 4.3.2-1. Common ECS Operator Functions Performed with CDDTS (2 of 2)

Operating Function	GUI	Description	When and Why to Use
Modify CCR	CDDTS Main Screen	Operator updates a previously entered CCR by clicking the “Modify” menu and selecting the “modify record” option.	To change previously entered data and/or to enter data into fields previously left blank.
Print CCR	CDDTS Main Screen	Operator sends a copy of CCR(s) to a monitor screen, printer, or to a designated file by clicking the “Print” button and selecting print options.	To obtain a hard or soft copy of a CCR or all of the CCRs in the CCR index.

4.3.2.1 Quick Start Using CDDTS

To invoke CDDTS from the command line prompt, enter:

/usr/ecs/OPS/COTS/ddts/bin/xddts

Additional information can be found in the *ClearDDTSUser’s Manual*.

4.3.2.2 CDDTS Main Screen

Figure 4.3.2-1 is the CDDTS main screen. It consists of three major areas: the CCR Index Display, which shows an index of CCRs; the CCR Record page, which displays some of the content of the highlighted CCR in the Index; and the Enclosure Display, which shows the initial set of enclosures for a CCR. All CDDTS functions are initiated from this screen.

ClearDDTS 4.1

FileSelectMetricsOptionsSpecial/SupportTo Do ListHelp

Change_Request' Records [SNAORTVCDPF] [EDFMD_CHNG_REC31 records

18	EDFmd00009	Add PhotoCopy Plus Software to the Baseline	II	routine	N
19	EDFmd00062	Upgrade HP Openview Software	II	routine	N
20	EDFmd00058	Remove XYZ Workstation from the Baseline	II	routine	N
21	EDFmd00055	Upgrade the SGI Hardware	II	routine	N
22	EDFmd00046	Change Permissions on server file	II	routine	N
23	EDFmd00037	Replace Board in Entry Workstation	II	urgent	N
24	EDFmd00075	Final Check on Master Template	I	urgent	0
25	EDFmd00008	Modify Email Template	II	routine	P
26	EDFmd00024	Revise Mail Notification List	II	routine	R
27	EDFmd00060	Install Frontpage software on timsh99	II	routine	R

SubmitCommitCloneRefreshClearNextPrevPrint...Gripe

Record

ModifyChange_StateLinksCMHelp

EDFMD_CHNG_REQPage 1/3

CCR Number: EDFmd00037Submitted : 970624Revision:

Priority[*]: urgentChange Class[*]: II

Status : NewEnclosures : 3

Title:

Replace Board in Entry Workstation

CCR ORIGINATOR INFORMATION

Originator Name: Sheila Smith

Organization : Ocean Watch

Phone Number : 301 832-4928

Organization Evaluation Engineer: Alice Jones





CONFIGURATION MANAGEMENT ADMINISTRATOR

CM Admin. Name: knagabus

Organization[*]: SMC

Phone Number : 301 614-9922

Enclosures

History Proposed Change Impact Summary Resolution

Figure 4.3.2-1. CDDTS Main Screen

Reference the *ClearDDTS User's Manual* for information concerning the menus and buttons on the CDDTS Main Screen.

4.3.2.2.1 CDDTS Submit CCR

Clicking the Submit button on the main screen brings up the “Submit A New Change Request” screen as shown in Figure 4.3.2-2. This screen enables the operator to select a class of projects (the Change Request Class is the default class) and a specific project (group of CCRs within the selected class) to which he/she wants to add a CCR. Reference Chapter 2 of the *ClearDDTS User’s Manual* for a detailed explanation of the terms, class and project. The procedures described herein are applicable to any class and project.

```
Record
Modify Change_State Links CM Help

*****
* SUBMIT A NEW CHANGE REQUEST *
*****

Submit to which class of projects: Change_Request

Project name: ECS_CHNG_REQ

`?' for context sensitive help,  `esc' to back up,  `control-C' to abort
```

Figure 4.3.2-2. Initial Submit Record Screen

The initial Submit Record Screen has two areas: CCR selection criteria area (middle section of the screen) and a help information area (last line of the screen). Information entered into the selection criteria area determines what set of CCR fields is selected for data entry purposes. The help information area explains how to get an explanation for each of the fields shown, how to move within a screen, and how to terminate the submit process.

Once the operator enters the desired class and project, the CCR page displays the CCR record form as shown in Figure 4.3.2-3. This form enables the operator to enter detailed information concerning the proposed change request.

Record

Modify Change State Links CM Help

EDFMD_CHNG_REQ Page 1/3

CCR Number: EDFmd00079 Submitted : 991007 Revision: █

Priority[*]: Change Class[*]:

Status : Submitting Enclosures : 0

Title:

CCR ORIGINATOR INFORMATION

Originator Name:

Organization :

Phone Number :

Organization Evaluation Engineer:

CONFIGURATION MANAGEMENT ADMINISTRATOR

CM Admin. Name: bfloyd

Organization[*]:

Phone Number :

?' for context sensitive help, `esc` to back up, `control-C` to abort

Figure 4.3.2-3. Submit Record Data Fields Screen

Descriptions of the Submit Record fields are listed in Table 4.3.2-2.

Table 4.3.2-2. Submit Record Fields Descriptions (1 of 2)

Field Name	Data Type	Size	Entry	Description
CCR Number	Character	10	System generated	A unique identifier for this resource change request.
Submitted	Date	6	System generated	The date this proposed change was first registered.
Revision	Character	2	Optional	The current revision/amendment to the proposed change.
Priority	Character	9	Required	<ul style="list-style-type: none"> • The urgency with which a proposed change is needed • Answer must be one of the following: routine, urgent, emergency • The default is routine

Table 4.3.2-2. Submit Record Fields Descriptions (2 of 2)

Field Name	Data Type	Size	Entry	Description
Change Class	Character	2	Required	<ul style="list-style-type: none">• Classification that distinguishes change requests according to management level needed for approval• Answer must be I or II*• The default is II*
Status	Character	17	System generated	The stage this proposed change has reached in its lifecycle.
Title	Character	72	Required	The nomenclature used to identify the proposed change.
Originator Name	Character	25	Required	Name of the person who is the author of the proposed change.
Organization	Character	30	Required	Name of the originator's organization.
Phone Number	Character	13	Required	Phone number of the originator.
Organization Evaluation Engineer	Character	25	Required	Name of the person who initially determines whether or not the proposal has merit and should be entered into the CDDTS database.
CM Admin. Name	Character	8	System generated	<ul style="list-style-type: none">• Name of the individual who registered this proposed change/enters the proposed change into the CDDTS database• Note: CDDTS uses User's Login ID
Organization	Character	5	Required	<ul style="list-style-type: none">• Name of the CM administrator's organization• Answer must be one of the following: EDC, EOC, GSFC, LaRC, NSIDC or SMC
Phone Number	Character	13	Optional	Phone number of CM Administrator.

***Class I Change:** an out-of-contract scope change that affects the form, fit, or function of the ESDIS Project CCB controlled items (technical baselines, technical requirements, contractual provisions such as cost and schedule, etc.). The ESDIS Project CCB must approve a Class I change.

***Class II Change:** an in-scope contract change that does not fall within the definition of a Class I change (e.g., a change in documentation only, a change in software code to comply with design and performance requirements prior to product delivery, a change in hardware materials). Any appropriate level configuration control board (CCB) can disposition a Class II change with the exception of Class II CCRs against documents controlled and maintained by ESDIS.

After all of the CCR record fields have been traversed, a Proposed Change Enclosure Screen is displayed (see Figure 4.3.2-4). This enclosure is used to hold additional information about a proposed change. It enables the operator to enter a free text description of the perceived need or problem and a proposed solution. For more information on the enclosure screen see Chapter 6 (Enclosures Section) of the *ClearDDTS User's Manual*.

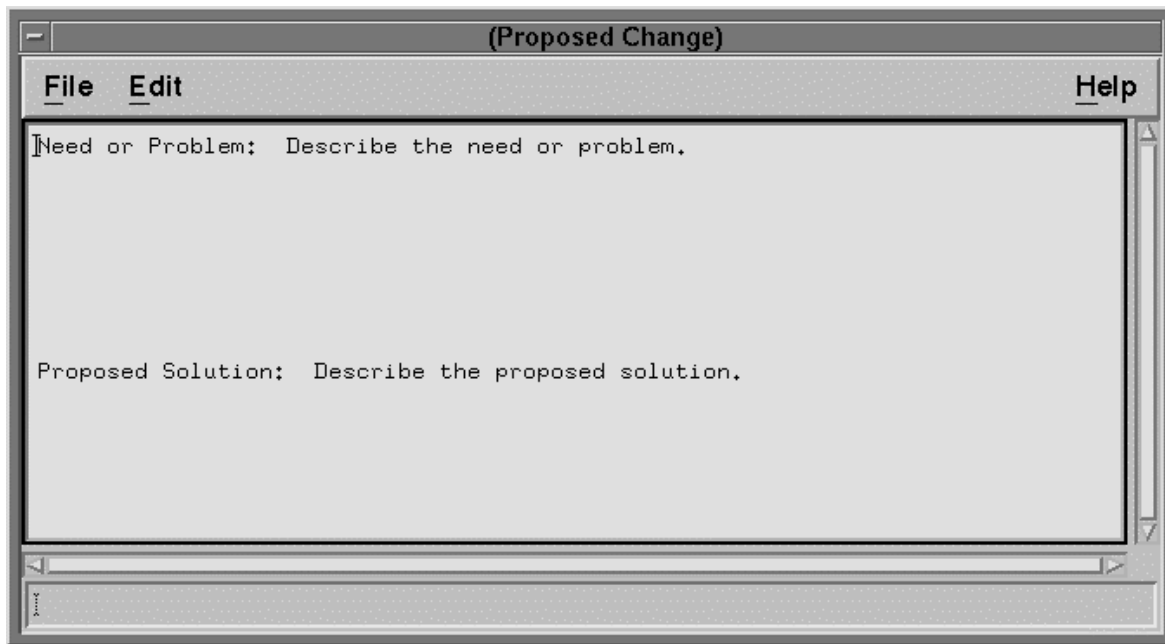


Figure 4.3.2-4. Proposed Change Enclosure Screen

Upon completion of entering the proposal information, clicking the file menu on the enclosure screen and selecting its “Save Changes & Dismiss Editor” option saves the contents of the enclosure. When the main screen display reappears, clicking the “Commit” button stores the CCR record into the CDDTS database.

4.3.2.2.2 CDDTS Change State of CCR

The first status (state) assigned to a CCR after it is committed to the CDDTS database is “New”. Refer to the upper left corner of the center section of Figure 4.3.2-5 for the current status of the CCR. When it is time to move the CCR to its next lifecycle state, the Change_State Menu

ClearDDTS 4.1

FileSelectMetricsOptionsSpecial/SupportTo Do ListHelp

Change_Request' Records [SNAORTVCDPF] [EDFMD_CHNG_RE(31 records

22	EDFmd00046	Change Permissions on server file	II	routine	N
23	EDFmd00037	Replace Board in Entry Workstation	II	urgent	N
24	EDFmd00075	Final Check on Master Template	I	urgent	0
25	EDFmd00008	Modify Email Template	II	routine	P
26	EDFmd00024	Revise Mail Notification List	II	routine	R
27	EDFmd00060	Install Frontpage software on timsh99	II	routine	R
28	EDFmd00001	Test CCR	II	routine	T
29	EDFmd00019	test test	II	routine	T
30	EDFmd00069	Sept. 16, 1999 CCR Submission	I	urgent	V
31	EDFmd00080	Revise Data Input Screen	II	routine	N

SubmitCommitCloneRefreshClearNextPrevPrint...Gripe

1 item committed to database.

Record

ModifyChange_StateLinksCMHelp

EDFMD_CHNG_REQPage 1/3

CCR Number: EDFmd00080Submitted : 991007Revision:

Priority[*]: routineChange Class[*]: II

Status : NewEnclosures : 3

Title:

Revise Data Input Screen

CCR ORIGINATOR INFORMATION

Originator Name: Frank Pace

Organization : LaRC

Phone Number : (999)234-1289

Organization Evaluation Engineer: J. Bellamy





CONFIGURATION MANAGEMENT ADMINISTRATOR

CM Admin. Name: bfloyd

Organization[*]: LaRC

Phone Number : (999)234-1830

Enclosures

History Proposed Change Impact Summary Resolution

Figure 4.3.2-5. Main Screen (Change_State)

on the main screen (Figure 4.3.2-6) is used. Clicking on the Change_State Menu causes the available state options for the CCR record to appear as shown in Figure 4.3.2-6.

Record			
Modify	Change_State	Links	CM Help
CCR Numk	S Submit	EDFMD_CHNG_REQ	Page 1/3
Priority	N New	Submitted : 991007	Revision:
Status	A Assign-Eval	Change Class[*]: II	Enclosures : 3
Title:	O Assign-Implement		
Revise	R Implement		
CCR ORIG	T Assign-Verify		
Origin	V Verify		
Organj	C Close	289	
Phone	D Duplicate	ineer: J. Bellamy	
Organj	P Defer	NISTRATOR	
Phone	F Forward	30	

Figure 4.3.2-6. Change_State Menu Screen

The Change_State Menu allows the operator to select the next state to be assigned. After the state Assign-Eval (state entered when the change request is being assigned to an engineer for evaluation/analysis), is selected, the associated data fields (if there are any) for this new state appear as shown in Figure 4.3.2-7.

Record						
Modify	Change State	Links	CM	Help		
EDFMD_CHNG_REQ				Page 2/3		
CCR Number: EDFmd00080						
ANALYSIS INFORMATION						
Evaluation Engineer : bfloyd						
Organization[*]: LaRC						
Email Address: bfloyd@larc.ecs.nasa.gov						
Impact Evaluators[*]:						
1. LaRC	2. GSFC	3. EDF	4.	5.	6.	
7.	8.	9.	10.	11.	12.	
Sites Affected[*]:						
1. LaRC	2. GSFC	3.	4.	5.	6.	
7.	8.	9.				
Related CCR# :						
CI Affected : Planning CSCI						
Documents Affected:						
Release Affected : Release X						
Baselines Affected: ■						
`?' for context sensitive help, `esc' to back up, `control-C' to abort						

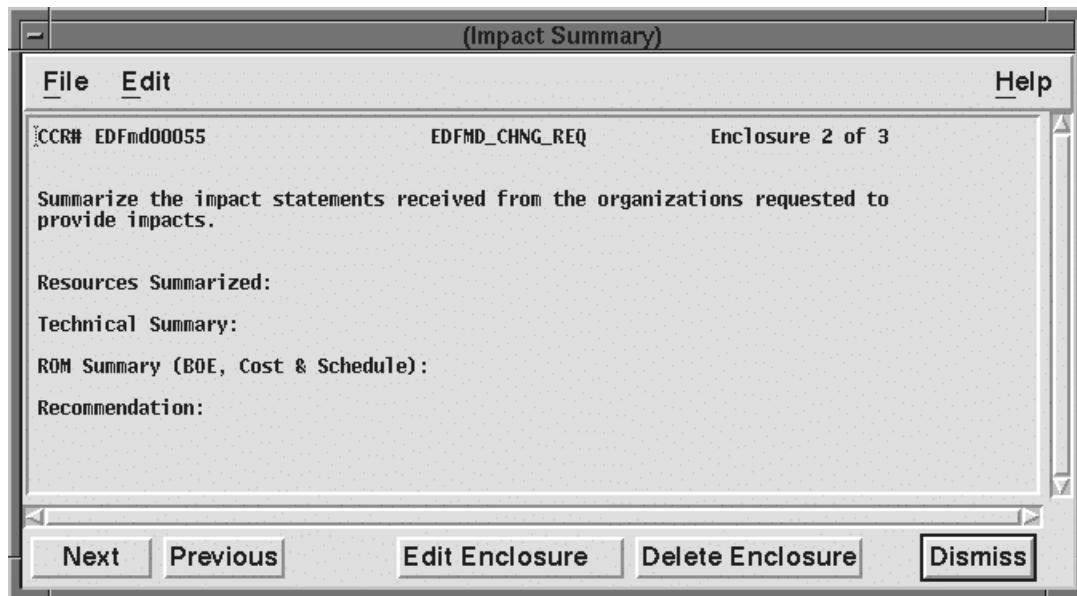
Figure 4.3.2-7. New State (Assign/Eval) Fields Screen

The new state's CCR form allows the operator to enter data into the newly displayed fields. Descriptions of the Assign-Eval fields are listed in Table 4.3.2-3.

Table 4.3.2-3. Assign-Eval Fields Descriptions

Field Name	Data Type	Size	Entry	Description
Evaluation Engineer	Character	8	Required	<ul style="list-style-type: none"> Name of the responsible engineer designated to analyze the proposed system change Use Login user name of the engineer
Organization	Character	5	Required	<ul style="list-style-type: none"> Name of the evaluation engineer's organization Answer must be one of the following: SEO, GSFC, LaRC, EDC, NSIDC, SMC or EOS
Eval. Engr. Email Address	Character	35	Optional	Electronic mail address of the evaluation engineer
Impact Evaluators (evaluators 1-12)	Character	5	Optional	<ul style="list-style-type: none"> Collection of names of organizations designated to assess the impact of this proposed change Answer(s) must be from the following: SEO, ESDIS, GSFC, LaRC, EDC, NSIDC, SMC, EOC or EDF
Sites Affected (sites 1-9)	Character	5	Optional	<ul style="list-style-type: none"> The collection of names of ECS sites affected by this proposed change Answer(s) must be from the following: SMC, GSFC, LaRC, EDC, NSIDC or EOC
Related CCR#	Character	10	Optional	The number of another CCR that is related to/associated with this CCR
CI Affected	Character	15	Optional	The identifier of the principal configuration item affected by this proposed system change
Docs. Affected	Character	56	Optional	The document identifiers of the system documents affected by the proposed system change
Release Affected	Character	10	Optional	The ECS release in which the proposed change is targeted for implementation
Baselines Affected	Character	56	Optional	The identifiers of system baselines affected by the proposed change

After all of the Assign-Eval fields have been traversed, an Impact Summary Enclosure Screen (See Figure 4.3.2-8) is displayed. This enclosure is used to hold free text information concerning the impact of the proposed change. The enclosure screen allows the operator to enter additional details in the same manner as described previously. After the enclosure has been saved, clicking the “Commit” button adds the new state’s data to the database. The selected state, “Assigned-Eval”, is now shown as the current state (Status) of the CCR record.



The image shows a software window titled "(Impact Summary)". It has a menu bar with "File", "Edit", and "Help". Below the menu bar, there is a header section with "CCR# EDFmd00055", "EDFMD_CHNG_REQ", and "Enclosure 2 of 3". The main area is a large text field containing the following text: "Summarize the impact statements received from the organizations requested to provide impacts.", "Resources Summarized:", "Technical Summary:", "ROM Summary (BOE, Cost & Schedule):", and "Recommendation:". At the bottom of the window, there are five buttons: "Next", "Previous", "Edit Enclosure", "Delete Enclosure", and "Dismiss".

Figure 4.3.2-8. Impact Summary Enclosure Screen

The next state in sequence on the Change_State Menu is the Assign-Implement state. The Assign-Implement state (state entered when the change request is being assigned to an engineer for development) data fields are shown in Figure 4.3.2-9.

Record	
Modify	Change State Links CM Help
EDFMD_CHNG_REQ	
Page 3/3	
CCR Number: EDFmd00080	
DISPOSITION [*]: Approved	
CCB Approving/Disapproving Official: Carol Mosley	
Date: 991005	
CCB Organization[*]: ESDIS	
IMPLEMENTATION	
Organization[*]: LaRC	
Engineer: ksmall	
E-mail: ksmall@larc.ecs.nasa.gov	
Start Date: 991007	
Est. Time to Complete: 2 days	
Completion Date:	
Effective Date: ■	
`?' for context sensitive help, `esc' to back up, `control-C' to abort	

Figure 4.3.2-9. Assign-Implement State Screen

Descriptions of the Assign-Implement state fields are shown in Table 4.3.2-4.

Table 4.3.2-4. Assign-Implement Fields Descriptions

Field Name	Data Type	Size	Entry	Description
Disposition	Character	14	Required	<ul style="list-style-type: none"> • Final decision made by a designated approval official concerning this proposed change • Answer must be one of the following: Approved, Approved_w/cmt, Disapproved, Withdrawn, Deferred
CCB Approval Official	Character	25	Required	Name of the individual whose decision is reflected in the proposed change's disposition
CCB Approval Date	Date	6	Required	<ul style="list-style-type: none"> • Date the final decision was made concerning this proposed change • Required format is yymmdd
CCB Org.	Character	5	Required	<ul style="list-style-type: none"> • Name of the organization whose configuration control board has authority to approve the change request • Answer must be one of the following: ESDIS, SMC, GSFC, LaRC, EDC, or NSIDC
Implementation Organization	Character	5	Required	<ul style="list-style-type: none"> • Name of the organization assigned to implement this proposed change • Answer must be one of the following: SEO, GSFC, LaRC, EDC or NSIDC
Implement. Engineer	Character	8	Required	<ul style="list-style-type: none"> • Name of the responsible engineer designated to implement the proposed system change • Use Login user name of engineer
E-mail Address	Character	35	Optional	Electronic mail address of the implementing engineer
Start Date	Date	6	Required	<ul style="list-style-type: none"> • Date implementation activity is to begin • Required format is yymmdd
Estimated Time to Complete	Character	20	Optional	Estimated time it takes to develop and unit test proposed change(s) in days or months
Completion-Date	Date	6	Optional	<ul style="list-style-type: none"> • Date the proposed change was completed • Required format is yymmdd
Effective Date	Date	6	Optional	<ul style="list-style-type: none"> • Date the proposed change is to go into operation • Required format is yymmdd

After the Assign-Implement fields have been traversed, the Resolution Enclosure Screen (See Figure 4.3.2-10) is displayed. This enclosure is used to hold a free text description of the solution for the proposed change request.

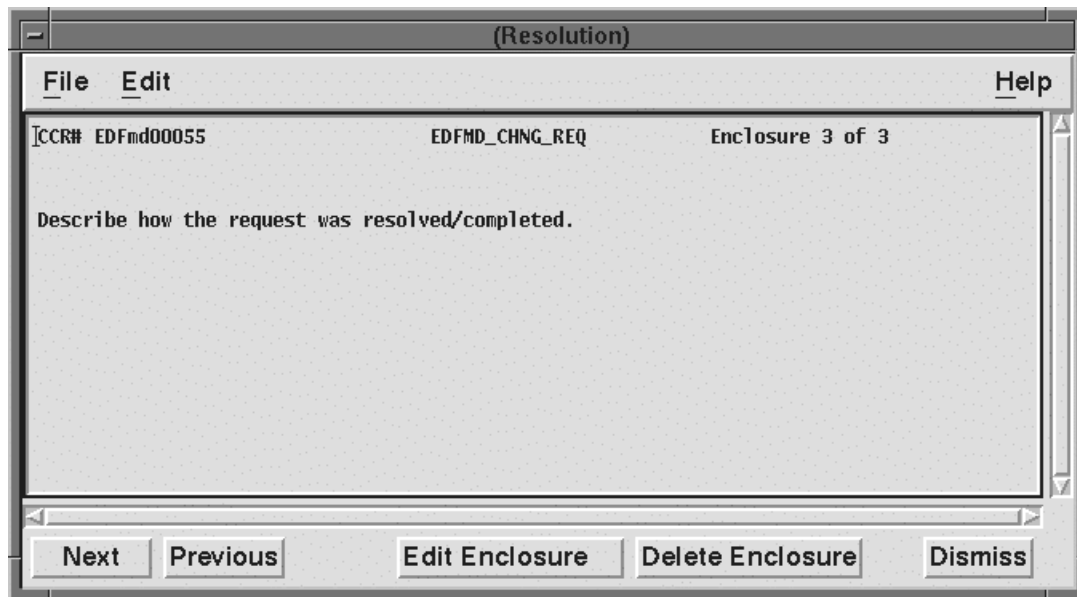


Figure 4.3.2-10. Resolution Enclosure Screen

The Resolution Enclosure Screen allows the operator to enter additional details in the same manner as described previously. After the enclosure has been saved, clicking the “Commit” button adds the Assign-Implement state’s data to the database.

The Implement state (state entered when the proposed change has been developed) is the state that follows Assign-Implement on the Change_State Menu. There are no data fields associated with the Implement state. When Implement is selected, the status is simply changed to implement.

Following the Implement state on the Change_State Menu is the Assign-Verify state. The Assign-Verify state (state entered when the developed change is being assigned to an engineer for verification testing), data fields appear under the heading, “TESTING INFORMATION” as shown in Figure 4.3.2-11.

Record	
Modify	Change State Links CM Help
EDFMD_CHNG_REQ Page 3/3	
CCR Number: EDFmd00080	
DISPOSITION [*]: Approved	
CCB Approving/Disapproving Official: Carol Mosley	
Date: 991005	
CCB Organization[*]: ESDIS	
IMPLEMENTATION	TESTING INFORMATION:
Organization[*]: LaRC	Engr. Name: Joe Tester
Engineer: bfloyd	Organization[*]: LaRC
E-mail: ksmall@larc.ecs.nasa.gov	Est. Test Completion Date: 991009
Start Date: 991007	
Est. Time to Complete: 2 days	
Completion Date:	
Effective Date:	
`?' for context sensitive help, `esc' to back up, `control-C' to abort	

Figure 4.3.2-11. Assign-Verify State Screen

Descriptions of the Assign-Verify state fields are shown in Table 4.3.2-5.

Table 4.3.2-5. Assign-Verify Fields Descriptions

Field Name	Data Type	Size	Entry	Description
Test. Engr. Name	Character	25	Required	Name of the engineer designated to test the system change.
Test Org.	Character	5	Required	Name of the test engineer's organization. Answer must be one of the following: EDC, EOC, GSFC, LaRC, NSIDC or SMC.
Est. Testing Completion Date	Date	6	Optional	The date that the tester expects to have completed the testing activity. Required format is yymmdd.

Following the Assign-Verify state on the Change_State Menu is the Verify state, which is the state entered when a developed change has been tested and verified that it functions properly. The “Verify” state data fields appear under the heading, “VERIFICATION INFORMATION” as shown in Figure 4.3.2-12.

Record	
Modify	Change State Links CM Help
EDFMD_CHNG_REQ Page 3/3	
CCR Number: EDFmd00080	
DISPOSITION [*]: Approved	
CCB Approving/Disapproving Official: Carol Mosley	
Date: 991005	
CCB Organization[*]: ESDIS	
IMPLEMENTATION	TESTING INFORMATION:
Organization[*]: LaRC	Engr. Name: Joe Tester
Engineer: bfloyd	Organization[*]: LaRC
E-mail: ksmall@larc.ecs.nasa.gov	Est. Test Completion Date: 991009
Start Date: 991007	
Est. Time to Complete: 2 days	VERIFICATION INFORMATION:
Completion Date:	Test Status (Pass/Fail)[*]: P
Effective Date:	Enclosure Added (Y/N)[*]: N
`?' for context sensitive help, `esc' to back up, `control-C' to abort	

Figure 4.3.2-12. CDDTS Verify State Screen

Description of the Verify state fields are shown in Table 4.3.2-6.

Table 4.3.2-6. Verify State Fields Descriptions

Field Name	Data Type	Size	Entry	Description
Test Status	Character	1	Required	<ul style="list-style-type: none"> This is an indicator as to whether or not the item (s) being tested has passed the test Answer must be <u>P</u>assed or <u>F</u>ailed
Enclosure Added	Character	1	Required	<ul style="list-style-type: none"> This is an indicator as to whether or not an enclosure has been to further describe the testing activity Answer must be <u>Y</u>es or <u>N</u>o

Following the Verify State on the Change_State Menu is the Close state that is the state entered when all activity specified in the change request has been completed or that the approval authority has decided to close it prior to completion of all activity. The Close state data fields appear under the heading, "CLOSING INFORMATION" as shown in Figure 4.3.2-13.

Record	
Modify	Change State Links CM Help
EDFMD_CHNG_REQ	
CCR Number: EDFmd00080	Page 3/3
DISPOSITION [*]: Approved	
CCB Approving/Disapproving Official: Carol Mosley	
Date: 991005	
CCB Organization[*]: ESDIS	
IMPLEMENTATION	TESTING INFORMATION:
Organization[*]: LaRC	Engr. Name: Joe Tester
Engineer: bfloyd	Organization[*]: LaRC
E-mail: ksmall@larc.ecs.nasa.gov	Est. Test Completion Date: 991009
Start Date: 991007	
Est. Time to Complete: 2 days	VERIFICATION INFORMATION:
Completion Date:	Test Status (Pass/Fail)[*]: P
Effective Date:	Enclosure Added (Y/N)[*]: N
CLOSING INFORMATION:	
Closed by: Art Closer	
Date: 991010	
Org.[*]: SMC	
`?' for context sensitive help, `esc' to back up, `control-C' to abort	

Figure 4.3.2-13. CDDTS Close State Screen

Descriptions of the Close state fields are shown in Table 4.3.2-7.

Table 4.3.2-7. Close State Fields Descriptions

Field Name	Data Type	Size	Entry	Description
Closed By	Character	25	Required	Name of the individual that is closing the CCR.
Closing Date	Date	6	Required	<ul style="list-style-type: none"> • Date that the CCR is closed • Required format is yymmdd
Closer's Organization-	Character	5	Required	<ul style="list-style-type: none"> • Name of the closing official's organization • Answer must be one of the following: EDC, EOC, GSFC, LaRC, NSIDC or SMC

Refer to Chapter 2 of the *ClearDDTS User's Manual* for information about the Duplicate, Defer (Postpone), and Forward states shown on the Change_State Menu.

4.3.2.2.3 CDDTS Modify CCR

There are times when the operator needs to change the information entered previously into the database or to enter information into fields that were not completed initially. The Modify Menu,

shown in the middle of Figure 4.3.2-14 and in Figure 4.3.2-15, enables modification of database data.

ClearDDTS 4.1

FileSelectMetricsOptionsSpecial/SupportTo Do ListHelp

Change Request' Records [SNAORTVCDPF] [EDFMD_CHNG_REC31 records

22	EDFmd00046	Change Permissions on server file	II	routine	N
23	EDFmd00037	Replace Board in Entry Workstation	II	urgent	N
24	EDFmd00075	Final Check on Master Template	I	urgent	0
25	EDFmd00008	Modify Email Template	II	routine	P
26	EDFmd00024	Revise Mail Notification List	II	routine	R
27	EDFmd00060	Install Frontpage software on t1msh99	II	routine	R
28	EDFmd00001	Test CCR	II	routine	T
29	EDFmd00019	test test	II	routine	T
30	EDFmd00069	Sept. 16, 1999 CCR Submission	I	urgent	V
31	EDFmd00080	Revise Data Input Screen	II	routine	A

SubmitCommitClone

RefreshClearNextPrevPrint...

Gripe

State changed to 'Assign-Eval' (press 'Commit' to save to database).

Record

ModifyChange_StateLinksCMHelp

EDFMD_CHNG_REQPage 1/3

CCR Number: EDFmd00080Submitted : 991007Revision:

Priority[*]: routineChange Class[*]: II

Status : Assigned-Eval. Enclosures : 3

Title:

Revise Data Input Screen

CCR ORIGINATOR INFORMATION

Originator Name: Frank Pace

Organization : LaRC

Phone Number : (999)234-1289

Organization Evaluation Engineer: J. Bellamy





CONFIGURATION MANAGEMENT ADMINISTRATOR

CM Admin. Name: bfloyd

Organization[*]: LaRC

Phone Number : (999)234-1830

Enclosures

History Proposed Change Impact Summary Resolution

Figure 4.3.2-14. CDDTS Main Screen (Modify)

Clicking the “Modify” menu on the main screen (Figure 4.3.2-15) brings up the modify options (Figure 4.3.2-16). Select the “Modify Record” option to change existing information and/or to enter information into fields left blank previously.

Record			
Modify	Change_State	Links	CM Help
<div> <div> Add Enclosure Modify Record Clone Record </div> <div> EDFMD_CHNG_REQ Page 1/3 Submitted : 991007 Revision: Change Class[*]: II Enclosures : 3 </div> </div>			
Title: Revise Data Input Screen			
CCR ORIGINATOR INFORMATION Originator Name: Frank Pace Organization : LaRC Phone Number : (999)234-1289 Organization Evaluation Engineer: J. Bellamy			
CONFIGURATION MANAGEMENT ADMINISTRATOR CM Admin. Name: bfloyd Organization[*]: LaRC Phone Number : (999)234-1830			

Figure 4.3.2-15. CDDTS Modify Menu Screen

The cursor appears at the first field that may be modified as shown in Figure 4.3.2-16. The modify record mode enables the operator to go through all of the fields that are associated with the current status of the CCR and make changes where appropriate. Once the changes have been made, clicking the “Commit” button on the main screen adds the changes to the database. Reference Chapter 6 (Viewing and Modifying Records) of the *ClearDDTS User’s Manual* for additional information.

Record			
Modify	Change State	Links	CM Help
EDFMD_CHNG_REQ			
CCR Number: EDFmd00080		Submitted : 991007	Revision: <input type="checkbox"/> Page 1/3
Priority[*]: routine		Change Class[*]: II	
Status : Assigned-Eval.		Enclosures : 3	
Title: Revise Data Input Screen			
CCR ORIGINATOR INFORMATION			
Originator Name: Frank Pace			
Organization : LaRC			
Phone Number : (999)234-1289			
Organization Evaluation Engineer: J. Bellamy			
CONFIGURATION MANAGEMENT ADMINISTRATOR			
CM Admin. Name: bfloyd			
Organization[*]: LaRC			
Phone Number : (999)234-1830			

Figure 4.3.2-16. CDDTS Fields To Be Modified Screen

4.3.2.2.4 CDDTS Print CCR

Starting at the Main Screen as shown in Figure 4.3.2-17, the Options Menu or the “Print” button can be used to print a CCR.

ClearDDTS 4.1

FileSelectMetricsOptionsSpecial/SupportTo Do ListHelp

Change_Request' Records [SNAORTVCDPF] [EDFMD_CHNG_REC31 records

22	EDFmd00046	Change Permissions on server file	II	routine	N
23	EDFmd00037	Replace Board in Entry Workstation	II	urgent	N
24	EDFmd00075	Final Check on Master Template	I	urgent	0
25	EDFmd00008	Modify Email Template	II	routine	P
26	EDFmd00024	Revise Mail Notification List	II	routine	R
27	EDFmd00060	Install Frontpage software on timsh99	II	routine	R
28	EDFmd00001	Test CCR	II	routine	T
29	EDFmd00019	test test	II	routine	T
30	EDFmd00069	Sept. 16, 1999 CCR Submission	I	urgent	V
31	EDFmd00080	Revise Data Input Screen	II	routine	A

SubmitCommitCloneRefreshClearNextPrevPrint...Gripe

Record

ModifyChange_StateLinksCMHelp

EDFMD_CHNG_REQPage 1/3

CCR Number: EDFmd00080Submitted : 991007Revision:

Priority[*]: routineChange Class[*]: II

Status : Assigned-Eval. Enclosures : 3

Title:

Revise Data Input Screen

CCR ORIGINATOR INFORMATION

Originator Name: Frank Pace

Organization : LaRC

Phone Number : (999)234-1289

Organization Evaluation Engineer: J. Bellamy





CONFIGURATION MANAGEMENT ADMINISTRATOR

CM Admin. Name: bfloyd

Organization[*]: LaRC

Phone Number : (999)234-1830

Enclosures

History Proposed Change Impact Summary Resolution

Figure 4.3.2-17. CDDTS Main Screen (Print)

Clicking the “Print” button brings up the Printing Options Screen. See Figure 4.3.2-18. This screen provides the operator the capability to print a highlighted CCR or all of the CCRs in the index on the main screen in a full page, index, one line, or three-line format.

Printing Options

Format To Print

☒ Print Full Page Format One Line Summary
Field Selections

☐ Print Index Format

☐ Print One Line Format

☐ Print Three Line Format

analyzed_by
approver_id
assigned_on
assigned_phone_email
baselines_affected
call

Clear All Fields

Select Default Fields

What To Print

☐ Print All Bugs in Index

☒ Print Selected Bugs in Index

Where To Print

☒ Print To Process Name: /usr/ucb/lpr -Pstarfish

☐ Print To File File Name:

☐ Print To Window

Print... Dismiss Save As Default Reload From Default Help

Figure 4.3.2-18. CDDTS Printing Option Screen

The Printing Options Screen also enables the operator to display the selected format on the monitor, print to a printer, or print to a designated file. Printing occurs when the desired option under “Where to Print” is highlighted and the appropriate information in the case of the printer and file options is supplied. Reference Appendix B (Setting Options) of the ClearDDTS User’s Manual for additional details.

4.3.2.3 Required Operating Environment

For all COTS packages, appropriate information on operating environments, tunable parameters, environment variables, and a list of vendor documentation can be found in a CM controlled ReadMe file for each product. To find the ReadMe file for the CDDTS, use the XRP Baseline Manager to determine where in ClearCase the ReadMe file resides.

4.3.2.4 Databases

The CDDTS database is a proprietary database that is SQL compliant. The database is customized only to the extent that some additional fields have been added. Reference Appendixes F and G of the ClearDDTS Administrator's Manual for detailed information about the CDDTS database layout, the schema file, how to modify the database schema, and other information required to maintain or revise the CDDTS database.

4.3.2.5 Special Constraints

None

4.3.2.6 Outputs

CDDTS emails notification to designated personnel of newly submitted CCRs and when the status of the CCR changes.

4.3.2.7 Event and Error Messages

Standard CDDTS event and error messages are used. There are no messages unique to the ECS implementation. A list of the CDDTS event and error messages is not provided in the ClearDDTS User's and Administrator's manuals. However, messages provided during execution of CDDTS are self explanatory.

4.3.2.8 Reports

Standard CDDTS reports are to be used. Reference Chapter 7 and Appendix B of the ClearDDTS User's Manual for information concerning the printing of a CCR report and a description of the available report formats.

4.3.2.8.1 Sample Reports

Examples of CDDTS reports are presented in the sections below.

4.3.2.8.1.1 Sample Report (Full Page Format)

Figure 4.3.2-19 is a CCR report resulting from the use of the CDDTS Printing Option (full page format).

ECS_CHNG_REQ

Page 1/3

CCR Number: MSSdd00630 Submitted : 960529 Revision:

Priority : routine Change Class: II

Status : Closed Enclosures : 3

Title:

Revise Data Input Screen (Example Only)

CCR ORIGINATOR INFORMATION

Originator Name: Frank Pace

Organization : LaRC

Phone Number : (999)234-1289

Organization Evaluation Engineer: J. Bellamy

CONFIGURATION MANAGEMENT ADMINISTRATOR

CM Admin. Name: bfloyd

Organization : LaRC

Phone Number : (999)234-1830

Figure 4.3.2-19. CDDTS CCR Report (1 of 4)

CCR Number: MSSdd00630

ANALYSIS INFORMATION

Evaluation Engineer : bfloyd

Organization : LaRC

Email Address: bfloyd@larc.com

Impact Evaluators:

1. GSFC 2. LaRC 3. EDF 4. 5. 6.

7. 8. 9. 10. 11. 12.

Sites Affected:

1. GSFC 2. LaRC 3. SMC 4. 5. 6.

7. 8. 9.

Related CCR# :

CI Affected : Planning CSCI

Documents Affected:

Release Affected : Release X

Baselines Affected:

Figure 4.3.2-19. CDDTS CCR Report (2 of 4)

ECS_CHNG_REQ

Page 3/3

CCR Number: MSSdd00630

DISPOSITION: Approved

TESTING INFORMATION:

CCB Approval Official: John Wana Engr. Name: Joe Tester

Date: 960607

Organization: LaRC

CCB Organization: ESDIS

Est. Testing Completion

Date: 960614

IMPLEMENTATION

VERIFICATION INFORMATION:

Organization: SEO

Test Status (Pass/Fail): P

Engineer: bfloyd

Enclosure Added (Y/N): N

E-mail: efinch@eos.com

Start Date: 960610

Est. Time to Complete: 2 days

Completion Date: 960612

Effective Date: 960710

CLOSING INFORMATION:

Closed by: Authur Closer

Date: 960618

Org.: SMC

***** Proposed Change *****

Need or Problem: Describe the need or problem.

The need is -----

Figure 4.3.2-19. CDDTS CCR Report (3 of 4)

Proposed Solution: Describe the proposed solution.

Suggest that the following capability be changed as follows:

- capability changes

***** Impact Summary *****

Summarize the impact statements received from the organizations requested to provide impacts.

Summary of impacts received from GSFC and EDF is -----

Resources Summarized: [description of resources]

Technical Summary:

ROM Summary (BOE, Cost & Schedule):

Recommendation: [Insert Recommendation]

***** Resolution *****

Describe how the request has been resolved/completed.

This request has been resolved as follows:

- Capability x has been modified to ----.

Figure 4.3.2-19. CDDTS CCR Report (4 of 4)

4.3.2.8.1.2 Sample Report (Three Line Format)

Figure 4.3.2-20 is a sample CCR report resulting from the use of the CDDTS Printing Option, Three Line Format.

Submitted 960529, CCR# MSSdd00630, Originator Frank Pace Title Revise Data Input Screen (Example Only) Priority routine, Class II, CCB Org. ESDIS, Dips. Approved, Status Closed.
Submitted 960521, CCR# MSSdd00617, Originator Joseph Winkler Title Add GUI to X11 Program (Example Only) Priority routine, Class II, CCB Org. LaRC, Disp. Approved, Status Implemented.

Figure 4.3.2-20. CDDTS CCR Report: Three Line Format

4.3.2.8.1.3 Sample Report (Index Format)

Figure 4.3.2-21 is a sample CCR report resulting from the use of the CDDTS Printing Option (Index format). Fields displayed are CCR Identifier, Title, Change Class, Priority, and Status.

MSSdd00630 Revise Data Input Screen(Example Only) II routine C
MSSdd00617 Add GUI to X11 Program (Example Only) II routine R

Figure 4.3.2-21. CDDTS CCR Report: Index Format

4.3.2.8.1.4 Sample Report (One Line Format)

Figure 4.3.2-22 is a sample CCR report resulting from the use of the CDDTS Printing Option (One Line format). The operator selects the fields desired for the one line format. In this case, the Identifier, CCR Originator, Originator Organization, Implementing Organization, and Status fields were selected and their data values are displayed.

MSSdd00630 Frank Pace	LaRC	SEO C
MSSdd00617 Joseph Winkler	GSFC	LaRC R

Figure 4.3.2-22. CDDTS CCR Report: One Line Format

4.3.2.8.2 Report Customization

Refer to Chapter 9 of the ClearDDTS Administrator's Manual for an explanation of how to customize CDDTS reports. Chapter 9 explains how to customize reports provided by CDDTS and how to create and add new reports.